

### **Remarks**

Claims 1-37 and 43-55, as amended, are pending in this application. In an Office Action dated October 29, 2004, the Examiner rejected claims 1-11, 14, 15, 21 and 47-51 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,898,904 to Wang (Wang). The Examiner rejected claims 12, 13, 16-20 and 27-29 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 6,577,643 to Rai *et al.* (Rai). The Examiner rejected claims 22-26 and 52-55 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of Rai and in further view of U.S. Patent No. 6,795,863 to Doty *et al.* (Doty). The Examiner rejected claims 30, 32, 34 and 35 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 6,141,565 to Feuerstein *et al.* (Feuerstein). The Examiner rejected claims 31 and 33 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 6,738,637 to Marinho *et al.* (Marinho). The Examiner rejected claims 36, 37 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 6,757,268 to Zendle (Zendle). The Examiner rejected claims 38 and 39 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 6,563,827 to Brueckheimer *et al.* (Brueckheimer). The Examiner rejected claim 40 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 6,047,006 to Brakefield *et al.* (Brakefield). The Examiner rejected claim 42 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 5,517,504 to Tran *et al.* (Tran) in further view of U.S. Patent No. 6,108,314 to Jones *et al.* (Jones). The Examiner rejected claim 43 under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of U.S. Patent No. 5,640,414 to Blakeney, II *et al.* (Blakeney). The Examiner rejected claims 1-39 and 44-55 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner objected to the specification as having informalities. The Examiner indicated that claims 44-46 contain allowable subject matter. Applicants respectfully request reconsideration in light of the following remarks.

Claim 1, as amended, provides a communication system including a plurality of subscriber units, a plurality of access points and a plurality of distribution points. Each subscriber unit sends and receives information packets using a wireless communication link. Each access point forms a coverage area for exchanging information packets with subscriber

units within the coverage area through at least one wireless communication link. Each distribution point is in communication with at least one access point and with at least one additional distribution point. Each distribution point receives receive an information packet for distribution to a destination within the communication system and determines if the information packet destination is to one of the plurality of subscriber units within the coverage area of an access point in communication with the distribution point. If so, the information packet is forwarded to the access point defining the coverage area containing the subscriber unit. If not, the information packet is forwarded to one of the additional distribution points in communication with the distribution point.

The Examiner asserts that claim 1 is anticipated by Wang. In particular, the Examiner identifies Wang's base stations (1003, 1004) as Applicants' distribution points and Wang's high power transmitters (1021 and 1025) as Applicants' access points. As will be described below, Wang's base stations do not perform the functions claimed for Applicants' distribution points.

Wang discloses a paging system that has two subnetworks, a control subnetwork and a data subnetwork, as described in the Abstract.

A two-way data network includes a broadcast control sub-network and a cellular data sub-network. The broadcast control sub-network includes a few **high-power radio transmitters** broadcasting into a large service area. The cellular data sub-network covers the large service area by a number of **base stations** each servicing a relatively small area. The wireless terminals of the two-way data network monitors the messages in a broadcast control channel at pre-assigned periodic time slots and remain in "sleep" mode at other times. A packet radio transceiver in the wireless terminal sends data to, and receives data from, the cellularized base stations. The broadcast control sub-network is used to notify the subscriber the receipt of a message. In responding to the notification, the location of the subscriber's wireless terminal is make known, thereby eliminating conventional tasks such as location and mobility management tasks and allowing wireless terminals to be low power. Communication between the cellular base stations and the wireless terminals achieves high data rate, low latency and high capacity.

The base stations and high power transmitters are part of different subnetworks. High power transmitters are used in a one-way, broadcast only network that is used to broadcast control messages. The control messages are used to notify wireless terminals of pending two-way communication.

When not engaged in two-way data communication, these wireless terminals monitor only the broadcast channel for the control messages. Thus, in a wireless terminal, the remainder of the circuits, other than the receiver for the broadcast channel, can be placed in a sleep mode until data communication begins. Thus, power efficient operations using a small battery power source can be provided.

Summary of the Invention, col. 5, ll. 54-60.

Only the base stations then participate in two-way data communication network.

In contrast, Applicants' distribution points forward information packets to an access point in communication with the distribution point if a subscriber unit is in the coverage of that access point. Mapped into the Examiner's construction for Wang, Wang's base station would have to send a packet to a high power transmitter in communication with that base station if a wireless terminal was within range of the high power transmitter. This is simply not the system disclosed in Wang.

For example, claim 1 provides that distribution points determine if the information packet destination is to one of the plurality of subscriber units within the coverage area of an access point in communication with the distribution point. The Examiner asserts that this is taught by Wang at column 10, lines 67-67, which is included in the following:

When wireless terminal 305 is within a local broadcast area of base station 303, a local radio link, such as radio link 301, can be created between wireless terminal 305 and local interface 520.

This passage neither teaches nor suggests Applicants' distribution points. Moreover, there is no mention whatsoever of wireless terminals being within the coverage area of the high powered transmitters, as would be required under the Examiner's construction.

The Examiner has failed to find Applicants' invention of claim 1 disclosed in Wang. Therefore, claim 1 is not anticipated by Wang. Claims 2-37, which depend from claim 1, are therefore also patentable.

Independent claim 47 provides a distribution point for use in a communication system including a plurality of networked distribution points. The distribution point includes at least one frond end communication interface, at least one back end communication interface and an intelligent packet switching device. Each front end interface communicates with an access point in wireless communication with subscriber units currently assigned to the distribution point. Each back end is in communication with a back haul communication device transferring packets with a back haul communication device in another of the plurality of networked distribution points. The intelligent packet switching device determines a destination for each received packet and determines if the destination is to a subscriber unit currently assigned to the distribution point. The packet is sent to the subscriber unit if the subscriber unit is currently assigned to the distribution point. If the destination is not to a subscriber unit currently assigned to the distribution point, the switching device determines if the destination is to a subscriber unit currently assigned to any other distribution point in the communication system. If the subscriber unit is currently assigned to any other distribution point in the communication system, the switching device identifies another distribution point in back haul communication with the distribution point to which the packet should be forwarded and forwards the packet to the identified distribution point.

The Examiner used the same construction to reject claim 47 that the Examiner used in rejecting claim 1. Although these claims have different scope, the same arguments used in claim 1 apply. Moreover, the Examiner did not find any teaching in Wang for Applicants' frond end communication interface, back end communication interface and intelligent packet switching device. The Examiner did not even mention these limitations in his rejection.

The Examiner has failed to find Applicants' invention of claim 47 disclosed in Wang. Therefore, claim 47 is not anticipated by Wang. Claims 48-55, which depend from claim 47, are therefore also patentable.

Claim 43, as amended, is believed patentable over the cited art.

The Examiner rejected claims 1-55 under 35 U.S.C. § 112, second paragraph, as being indefinite. Most of these claims were rejected for using the phrase "A method as in claim X" rather than "The method as in claim X" (or similar). This is a question of preference

and in no way renders a claim "indefinite." However, solely in an effort to speed up prosecution, these claims have been amended. Other amendments are based on similar word choices that have nothing to do with whether the claim is definite.


The Examiner's objections to the specification have been addressed by amending either the specification of figures.

Claims 1-37 and 43-55, as amended, are pending in this application. Applicants believe these claims meet all substantive requirements for patentability and respectfully request that this case be passed to issuance. No fee is believed due by filing this paper. However, any fee may be withdrawn from Deposit Account No. 21-0456 as specified in the Application Transmittal.

The Examiner is invited to contact the undersigned regarding any aspect of this case.

Respectfully submitted,

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